

Notice of Allowability

Application No.

10/840,030

Examiner

Thuy V. Tran

Applicant(s)

RIBARICH ET AL.

Art Unit

2821

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment submitted on 4/13/2006.
2. ☒ The allowed claim(s) is/are 2-5 and 7-25.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


THUY V. TRAN
PRIMARY EXAMINER

DETAILED ACTION

This is a response to the Applicants' amendment submitted on April 13, 2006. In virtue of this amendment, claims 1 and 6 are canceled; and thus, claims 2-5 and 7-25 are now presented in the instant application.

Allowable Subject Matter

1. Claims 2-5 and 7-25 are allowed.

Reasons for Allowance

2. The following is an examiner's statement of reasons for allowance:

Prior art fails to disclose or fairly suggest:

- An electronic ballast control for controlling a power switch in an electronic ballast to switch power to a load wherein the control is implemented as a single integrated circuit and further comprising a minimum frequency signal applied to the oscillator to determine a minimum oscillation frequency provided by the oscillator, in combination with the remaining claimed limitations as called for in independent claim 2 (claims 3-5, 7-8, and 10 are allowed since they are dependent on claim 2);
- An electronic ballast control for controlling a power switch in an electronic ballast to switch power to a load wherein the oscillator is a digital oscillator, in combination with the remaining claimed limitations as called for in independent claim 9;
- An electronic ballast control for controlling a power switch in an electronic ballast to switch power to a load further comprising a DAC in the oscillator for converting an input digital signal to an analog signal, whereby the oscillation frequency is related to the analog signal, in combination with the remaining claimed limitations as called for

in independent claim 11;

- A method of operating an electronic ballast comprising applying the parameters to ballast control components to obtain selected operating points for the components, including applying a digital oscillator control signal to a digital oscillator in the control, and D/A converting said oscillator control signal to an analog signal, whereby the oscillation frequency is related to the analog signal, in combination with the remaining claimed limitations as called for in independent claim 12 (claims 13-17 are allowed since they are dependent on claim 12);
- A method of operating an electronic ballast further comprising counting a number of events in the ballast control to determine when the number of events reach a predetermined value in a specified time period, in combination with the remaining claimed limitations as called for in independent claim 18;
- A method of operating an electronic ballast further comprising timing one or more events to determine if a predetermined time duration is achieved for the one or more events, in combination with the remaining claimed limitations as called for in independent claim 19;
- A ballast control IC comprising a digital oscillator coupled to the controller for receiving a digital oscillation set point and providing an oscillation signal based on the set point, in combination with the remaining claimed limitations as called for in independent claim 20 (claims 21-22 are allowed since they are dependent on claim 20);
- An electronic ballast control for controlling a power switch in an electronic ballast to

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switch power to a load further comprising an input section of said integrated circuit for inputting said parameters, said input section comprising only two pins of said integrated circuit for receiving a data signal and a clock signal, in combination with the remaining claimed limitations as called for in independent claim 23 (claim 24 is allowed since it is dependent on claim 23); and

- An electronic ballast control for controlling a power switch in an electronic ballast to switch power to a load wherein said integrated circuit has a pair of shutdown pins for inputting control parameters corresponding to a pair of loads, said control parameters enabling said control to shut down if one load is removed, and/or to continue running if one load is removed, and/or to initiate a start-up operation when a removed load is replaced by a new load, in combination with the remaining claimed limitations as called for in independent claim 25.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thuy V. Tran whose telephone number is (571) 272-1828. The examiner can normally be reached on M-F (8:00 AM -4:00 PM).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy P. Callahan can be reached on (571) 272-1740. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

04/30/2006

A handwritten signature in black ink, appearing to read 'Thuy V. Tran', with a stylized, cursive script.

**THUY V. TRAN
PRIMARY EXAMINER**

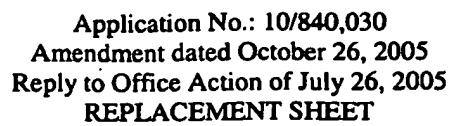
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Figure 2

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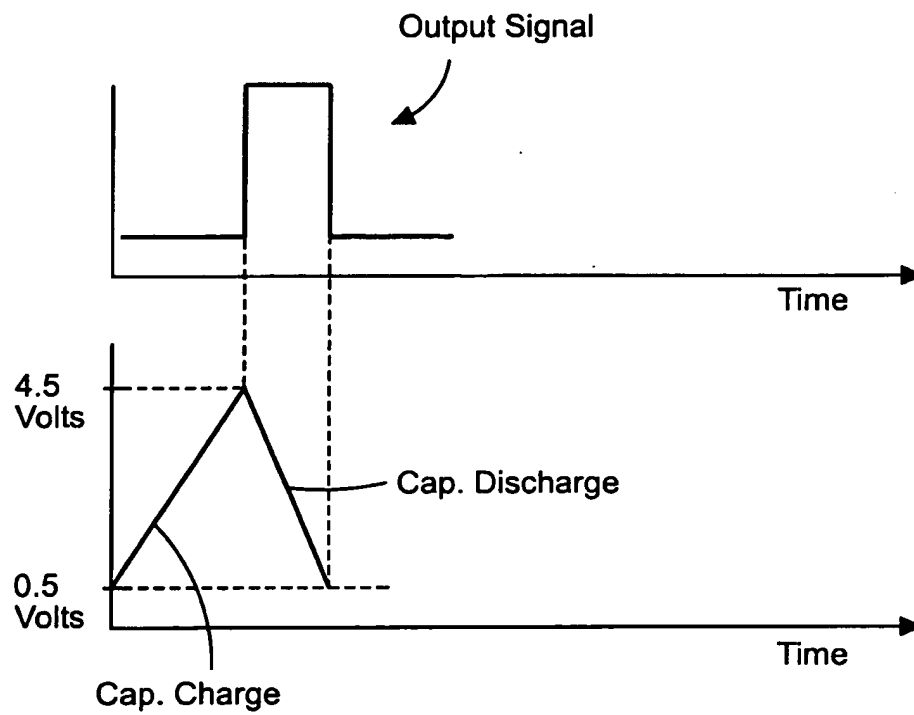


Figure 3

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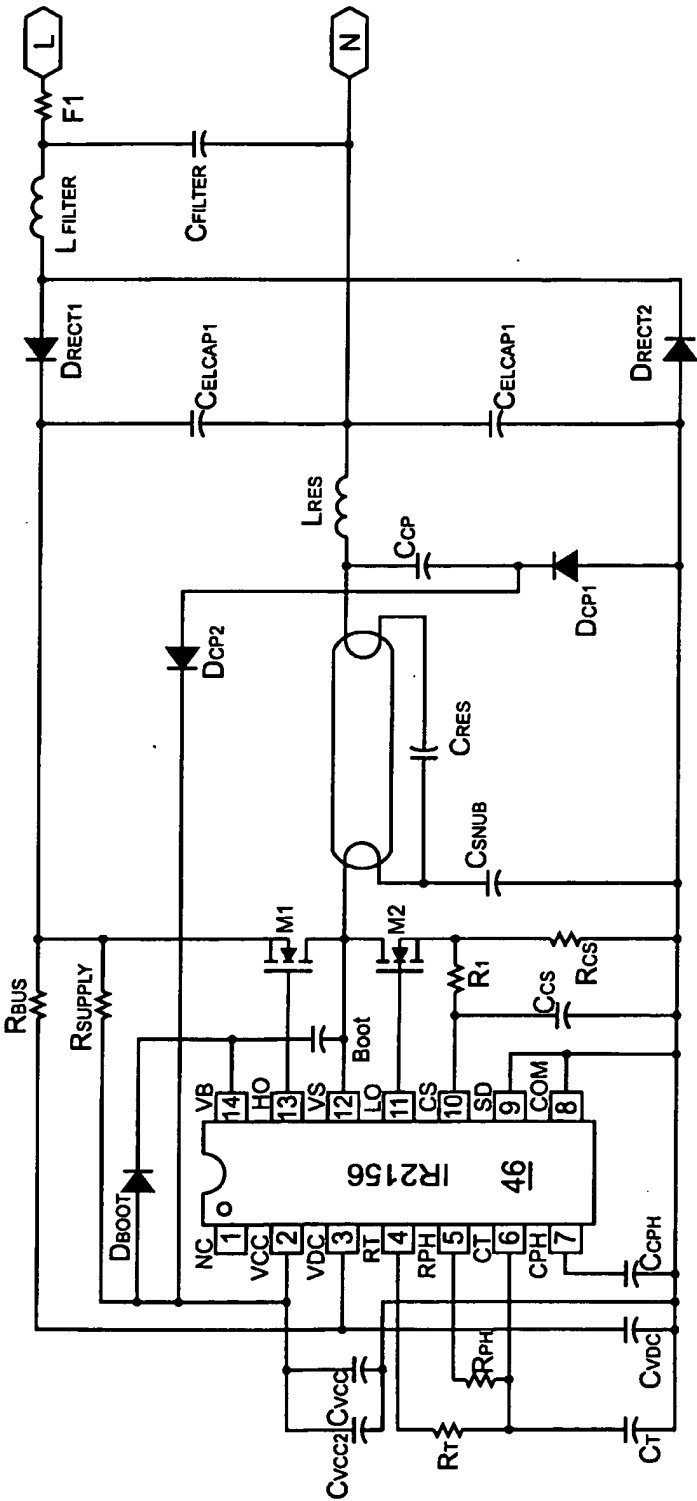


Figure 4

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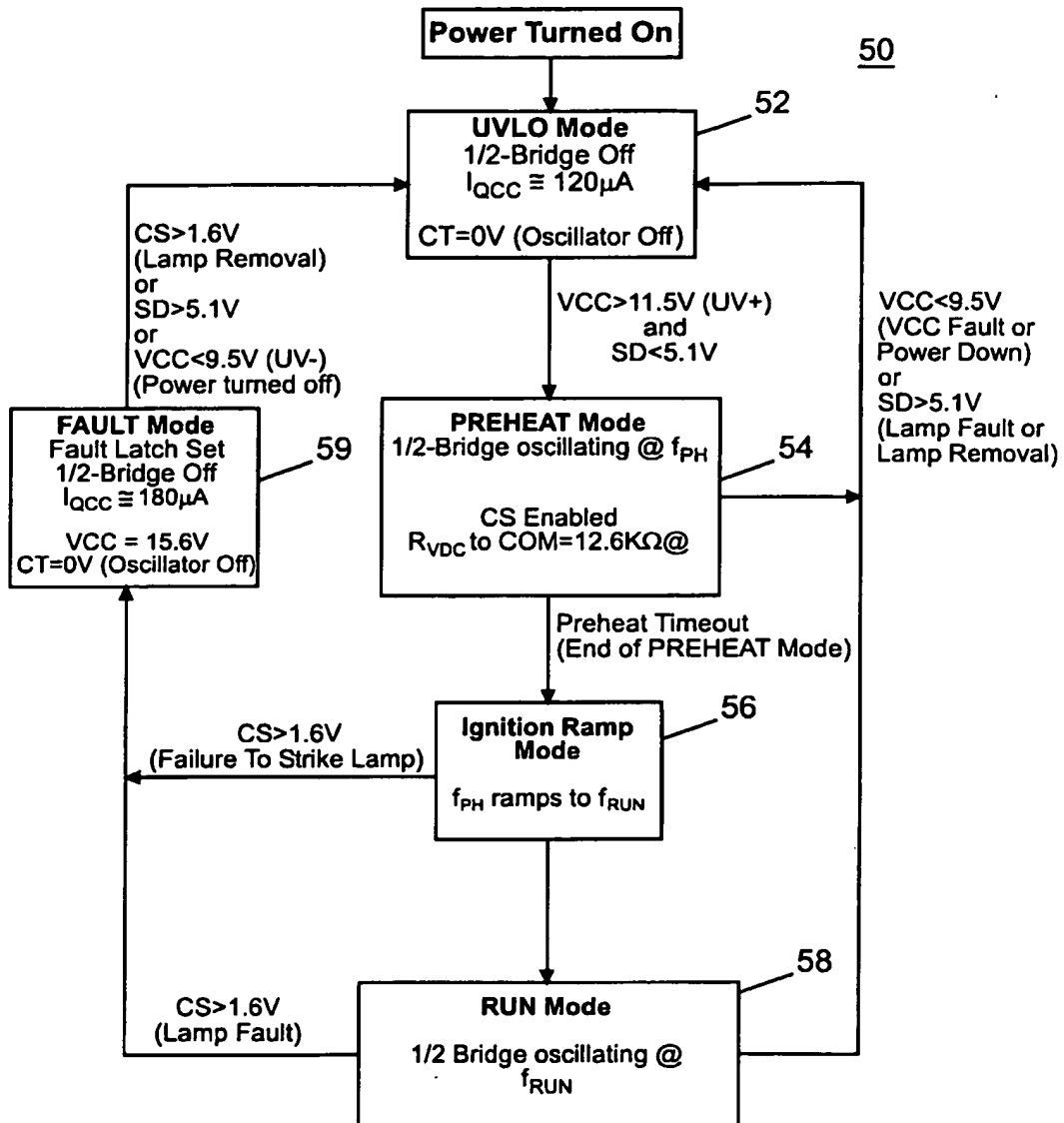


Figure 5